177 Pelvic Examination

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Definition

The pelvic examination is performed to collect information about the lower abdomen and external genitalia, vagina, cervix (including cervical cytology), uterus, adnexa, anus, and rectum.

Technique

Rapport is made with the patient antecedent to the pelvic examination via anamnesis and the general medical examination. The room should be clean and at comfortable temperature. The physician should likewise be clean and neatly clad. Running from the operating room to the office in a bloody scrub suit should be reserved for dire emergencies. The patient should be placed on an examining table with her shod feet in stirrups and her comfort ascertained. Always instruct the patient to void before the examination is done.

The physician should assure the patient that the pelvic examination will be done as gently as possible. The examination usually begins by inspection and gentle palpation of the lower abdomen for masses, tenderness, distention, hernias, and incisions. Note should also be made of the pubic hair and its distribution as well as the amount and distribution of facial and axillary hair.

The left hand should be used for examining the vagina since evaluation of the left side of the pelvis is easier with the left hand in the vagina. The left side of the pelvis is ordinarily more difficult to evaluate because the sigmoid colon is usually located on the left. Also, the strongest hand should be on the patient's lower abdomen, and for most people the strongest hand is the right hand.

An excellent light should be shining over the examiner's shoulder for adequate illumination of the external genitalia. With the index and middle fingers of the gloved left hand, the external genitalia are inspected and palpated. Any lesion, such as a warty growth, a mass, an ulcer, or anything else, must be examined carefully. The size of the clitoris and the development of labia minora and majora should be noted. The skin between the posterior vaginal fourchette and the anus (perineal body) should be inspected. Inspection of the anus and perianal area should also be done.

The area of the Bartholin glands in the lower portion of the labia may be palpated between the thumb and index fingers of the left hand by placing the index finger just inside the vaginal introitus. Ordinarily, normal Bartholin glands cannot be felt and are not tender. Also, one does not usually see the orifice of the Bartholin gland duct.

The fingers are inserted along the anterior vaginal wall to the base of the bladder with firm pressure directed toward the symphysis; the fingers are then brought down against the urethra. While the urethra is being stripped from above down, the examiner should watch for the appearance of pus at the external urethral meatus. Note any tenderness or induration of paraurethral tissue or glands.

With the same two fingers, gently press downward on the posterior perineum and ask the patient to strain down and cough. This part of the examination will allow a determination of relaxation and support of the vaginal introitus, the vaginal walls, and the uterus. The presence of a urethrocele, cystocele, rectocele, enterocele, and uterine descensus or the loss of urine from the bladder through the urethra may be detected. Ordinarily, the cervix will not be visible when the patient strains down.

With two fingers in the vagina, one may also palpate the medial border of the levator muscle. These muscles are usually not tender when palpated. Some impression of the strength and competence of these muscles may be obtained by asking the patient to squeeze them tightly around the examiner's finger in the vagina. The patient may be helped to identify these muscles if she is reminded that these are the same muscles that are used to stop the flow of urine in midstream.

The bivalve speculum should now be inserted. It should be comfortably warm and moistened with water only. It should be inserted over two fingers depressing the posterior perineum along the posterior vaginal wall. The anterior vaginal wall is more sensitive. Therefore, the tip of the speculum should be directed away from the anterior vaginal wall. The bivalve speculum is then opened to that the cervix may be completely visualized. It is important to use a speculum of proper size. A thin, narrow speculum may be used for young girls and older women. Most adult parous women can be examined satisfactorily with a medium-size Graves speculum. Only occasionally will it be necessary to use a large speculum.

A cervical cytology smear should be taken. There are several techniques for obtaining specimens for cytologic examination (see Chapter 178, Pap Test). It is wise to use the technique advised by the cytologist who will read the smear. Cervical cultures should be taken for Chlamydia and Neisseria in patients in high-risk groups. Patients should be advised not to douche or have intercourse for at least 2 days before the cytology smear is made.

Inspect the cervix carefully. Look for erosion, eversion, cysts, polyps, lacerations, ulcerations, cervical enlargement, bleeding, and menstrual discharge. Special diagnostic procedures such as Schiller's (iodine) stain, cervical biopsy, endocervical scrape, colposcopy, and cervical and uterine sounding may be necessary. The direction in which the cervix points may give some clue to the position of the uterine corpus. For example, if the cervix points anteriorly, toward the bladder, the body of the uterus will usually be found retroverted in the cul-de-sac.

Remove the speculum slowly and completely inspect the

vaginal walls. Inspect for evidence of vaginitis, vaginal discharge, foreign bodies, and other lesions.

The bimanual examination should be done next. Lubricate the fingers of the examining hand. The cervix is felt with two fingers of the left hand in the vagina. Note the location and consistency of the cervix. An especially soft cervix (? pregnancy) or an especially hard cervix (? cancer) should both be noted. Then place the right hand on the patient's lower abdomen immediately above the symphysis. The uterus is usually palpated as a pear-shaped organ in the midline and anterior. It may be lifted with the vaginal fingers for greater ease of palpation. Ordinarily it is firm, smooth, movable, and nontender. Notations should be made of any abnormality in its size, shape, symmetry, consistency, or mobility.

The adnexal region surrounds the uterus and contains the fallopian tubes, ovaries, rectosigmoid, small intestine, bladder, ureters, vessels, nerves. In a thin, relaxed patient, it is usually possible to palpate normal ovaries in the adnexal region lateral and posterior to the uterus. In some patients, it may be difficult to feel normal ovaries. Examine the adnexal region for masses and tenderness. If a mass is felt, carefully note its size, location, consistency, contour, mobility, or associated tenderness. Also note the presence of induration in the adnexa.

Using a different glove, repeat the bimanual examination with the middle finger of the left hand placed in the rectum. It is extremely important that this examination be done gently. The tip of the middle finger should be well lubricated and placed against the anal orifice. Ask the patient to strain down. When she strains, only gentle pressure will be needed to insert the middle finger to its full length. With the patient straining, the anal sphincter will be more dilated, and insertion of the finger will cause less discomfort.

The pelvic examination is not complete unless a bimanual examination has been done with the finger in the rectum. This part of the examination allows for a better examination of the pelvis because the rectal finger can reach beyond the posterior vaginal fornix and can therefore palpate the uterosacral ligaments, the paracervical tissue, the broad ligaments, the ovaries, the pelvic side walls. As the finger is withdrawn, the entire circumference of the rectum should be felt. Feces that are adherent to the glove covering the rectal finger should be inspected for evidence of mucus and fresh or old blood.

While the bimanual examination is being done, palpation of the bladder may also be carried out. A mass, abnormal induration, or tenderness and other findings should be noted. If there is an impression that the bimanual examination is not adequate because of constipated stool in the rectum and lower colon, the patient should be instructed to take an enema and return for another examination.

Occasionally an examination of the vagina with the patient in the knee–chest position is necessary. The vagina is naturally distended with air in this position. The vaginal walls can then be inspected better. Pelvic examination with the patient standing is not often necessary but may be done for a more complete examination of vaginal wall relaxation, uterine descensus or prolapse, and to evaluate stress incontinence.

Basic Science

Figures 177.1 through 177.4 show the normal anatomy of the female pelvis and external genitalia.

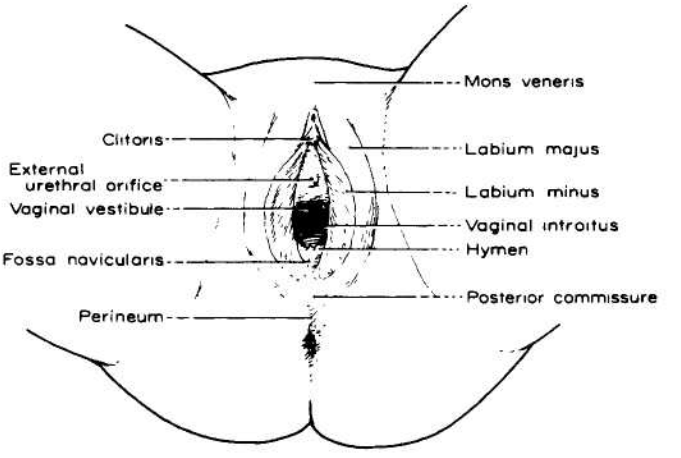

Figure 177.1
External genitalia. (Modified and redrawn from FK Beller et al. Gynecology. New York: Springer-Verlag, 1974.)

Clinical Significance

A pelvic examination must be done for the database of a female patient to be complete. Pelvic examination does not harm the patient, and its omission can be responsible for failure to make potentially fatal diagnoses. For example, the complete gynecologic examination includes the sites from which over 50% of all malignancies develop in the female: breast, cervix, endometrium, ovary, rectum, bladder, vulva. Only in patients with vaginal bleeding in the third trimester of pregnancy should the pelvic examination be done in the operating room so that a cesarean section can be performed immediately if a placenta previa is found and a hemorrhage occurs.

Once again, it is emphasized that gynecologic patients must be made comfortable during the examination, and the examination must be conducted in a gentle manner; otherwise, the examination itself will probably be frustrated by the patient's involuntary muscular resistance to it. This is true for every patient and for every examination, but is especially important for the patient having her first gyne-

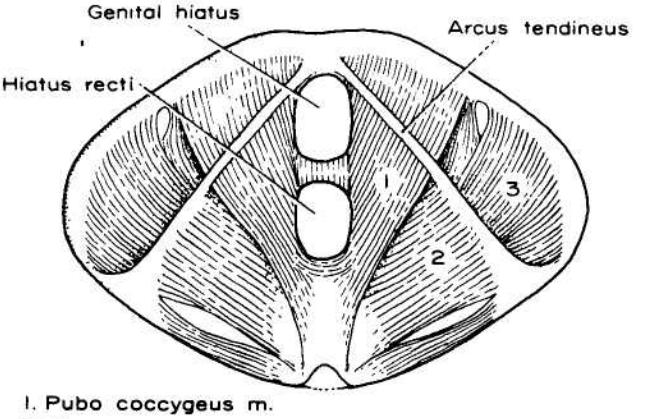

Figure 177.2
The pelvic diaphragm. 1 = pubococcygeus muscle; 2 = iliococcygeus muscle; 3 = internal obturator muscle.

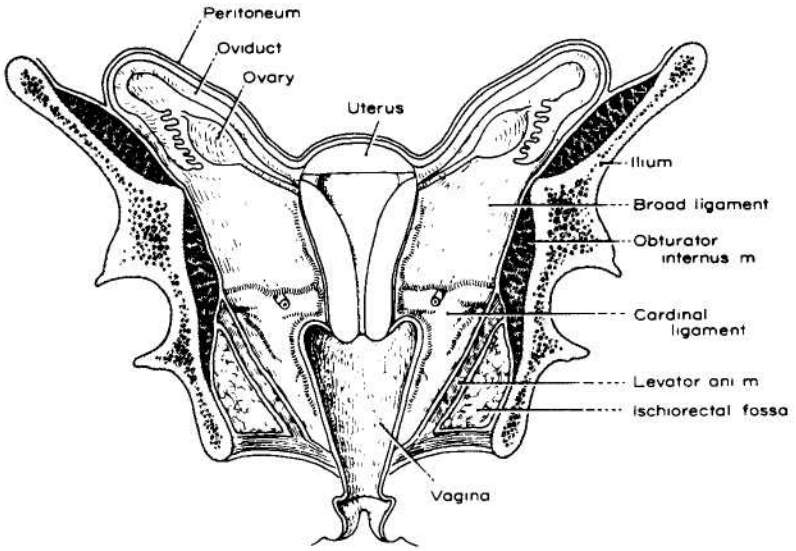

Figure 177.3
Frontal section of the female pelvis. (Modified and redrawn from FK Beller et al. Gynecology. New York: Springer-Verlag, 1974.)

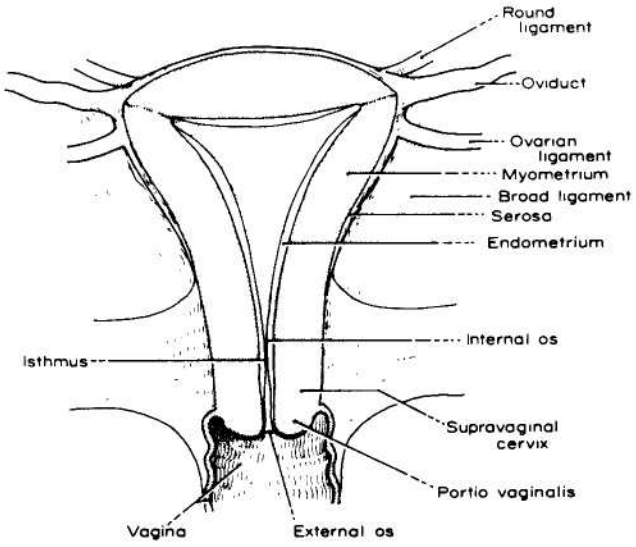

Figure 177.4
Frontal section of the uterus. (Modified and redrawn from FK Beller et al. Gynecology. New York: Springer-Verlag, 1974.)

cologic examination. Some patients are embarrassed to undress and afraid of the examination. Patients must be undressed for an adequate examination, but proper draping prevents unnecessary exposure. Also remember that some patients have painful pelvic conditions.

It is occasionally necessary to examine a patient under general anesthesia or with moderate sedation, and it is not infrequently desirable to supplement the pelvic examination with laparoscopic investigation.

If it is impossible to find the problem without hurting the patient, hurting her will not help. No patient enjoys a gynecologic examination. But if the examination is properly explained and gently conducted with proper attention to the patient's comfort, adequate and accurate information can usually be obtained. Only under very unusual circumstances is it necessary to resort to pelvic examination under anesthesia.

Never omit the pelvic examination because a patient is menstruating. Menstruation is not a contraindication to the pelvic examination, nor will the patient be harmed by the examination. If a patient calls to make an appointment for her yearly gynecologic examination and Pap smear, the appointment should be given for a time when she is not menstruating, simply because the Pap smear is somewhat more accurate in the absence of menstrual blood. Do not be guilty of writing on a patient's chart, "Pelvic deferred, patient menstruating."

References

Beller FK, et al. Gynecology: a textbook for students. New York: Springer-Verlag, 1974.

Novak ER, Jones GS, Jones HW. Novak's textbook of gynecology. 10th ed. Baltimore: Williams and Wilkins, 1981.